

INFO 7003 ADVANCED TOPICS IN USER SYSTEM INTERACTION

Credit Points 10

Legacy Code 301045

Coordinator Omar Mubin ([https://directory.westernsydney.edu.au/search/name/Omar Mubin/](https://directory.westernsydney.edu.au/search/name/Omar%20Mubin/))

Description The domain of User System Interaction or also known as Human Computer Interaction (HCI) dictates that IT graduates must be able to develop and evaluate interfaces that not only look professional but are usable, functional and accessible. This post graduate subject also examines HCI as a field of research and discusses novel areas of research in the area. Students in this subject will be required to complete a research project alongside a literature review document both of which comprise of content that is of a standard of being able to be considered for publication and/or presentation in a HCI conference or journal.

School Computer, Data & Math Sciences

Discipline Information Technology, Not Elsewhere Classified.

Student Contribution Band HECS Band 2 10cp

Level Postgraduate Coursework Level 7 subject

Incompatible Subjects INFO 3003 - Human-Computer Interaction
INFO 3004 - Human-Computer Interaction (Advanced)

Restrictions

Students must be enrolled in a postgraduate program.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Apply cognitive and user models to the design of application user interfaces.
2. Describe ways in which users' characteristics (i.e., age, education, cultural differences, disability etc.) require adaptation of a user interface to increase effectiveness.
3. Integrate appropriate user-centred design methodologies into the development of an application, website or emerging technology (such as mobile and wearable devices)
4. Describe and use the major usability guidelines and standards.
5. Develop low-fidelity prototypes, and high-fidelity prototypes.
6. Develop user interfaces for domain specific applications.
7. Create an appropriate user evaluation plan with carefully chosen subjective and objective measures.
8. Discuss state of the art research issues and novel interaction technologies under the umbrella of HCI by means of presenting discourse through a literature review paper.

Subject Content

Understanding the user and the user experience
Interaction styles
Usability standards
User-centred design methods
Development tools and prototyping
Matching interface elements to user requirements

Usability testing: tools and methodologies
Accessibility and assistive technologies
Rich media
Localization, globalization
Developing for multiple devices (Computer, PDAs, 3G phones etc)
Human Computer Interface In Industry
Emerging technologies
Research initiatives in HCI
Research skills (literature review, collecting and analysing data, writing a research report)
Novel Interaction Techniques
Multimodal Interaction
Mobile HCI

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/Group Task
Log/Workbook	3-5 questions to be completed during tutorial	10	Y	Individual
Log/Workbook	Weekly exercises to be completed at home	20	Y	Individual
Applied Project	Part A - 750 words Part B - 1,200 words Part C - 10 minutes presentation	50	Y	Individual
Literature Review	1,500-2,000 words	20	N	Individual

Teaching Periods

Autumn (2022)

Parramatta - Victoria Rd

Evening

Subject Contact Omar Mubin ([https://directory.westernsydney.edu.au/search/name/Omar Mubin/](https://directory.westernsydney.edu.au/search/name/Omar%20Mubin/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=INFO7003_22-AUT_PS_E#subjects)

Autumn (2023)

Parramatta - Victoria Rd

On-site

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFO7003_23-AUT_PS_1#subjects)

Sydney City Campus - Term 2 (2023)

Sydney City

On-site

Subject Contact Mahsa Razavi ([https://directory.westernsydney.edu.au/search/name/Mahsa Razavi/](https://directory.westernsydney.edu.au/search/name/Mahsa%20Razavi/))

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFO7003_23-SC2_SC_1#subjects)

Sydney City Campus - Term 3 (2023)

Sydney City

On-site

Subject Contact Harry Wang ([https://directory.westernsydney.edu.au/search/name/Harry Wang/](https://directory.westernsydney.edu.au/search/name/Harry%20Wang/))

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFO7003_23-SC3_SC_1#subjects)